Remarks

Regarding the objection to Fig 2, the revised version attached hereto is believed to satisfy the Examiner's requirements.

Regarding the objections to claims 9, 10, 12, 15, 24 and 27, these are all overcome by corrections following the Examiner's suggestions, and claim 24 has been deleted.

Regarding the Indefiniteness rejections of claim 17-19 for claiming a signal, these claims have been deleted.

Regarding the rejection of claim 6 and other claims under 35 U.S.C. §102 for anticipation by Sugawara, the following comments are made.

Claim 6 as amended now specifies monitoring at two locations using a proxy to determine an optical performance characteristic and comparing the optical performance at the first and second locations to determine whether the degradation is upstream or downstream of the second location. This is supported in the specification and figures as filed, particularly page 17 onwards, and figs 5A and 5B. Here it shows that the location of the source of the degradation enables a suitable protection path to be selected.

Sugawara shows a monitoring method for an optical transmission line, for determining a Q value from a received signal. After discriminating and converting to a digital value, a data processing circuit acquires a distribution function from the input average value Vm, differentiates the distribution function with respect to a change in the discrimination voltage Vth to thereby acquire a probability density function, and computes a signal quality parameter such as a Q value from the distribution function and probability density function. This can determine the quality of a received digital signal with simpler circuit structures which perform binarization, detection of an average value and data processing merely based on the discrimination voltage, without measuring an error ratio or measuring the amplitude

histogram of an eye pattern as needed in the prior art. The Q value can be used to switch an optical path to a protection path using an optical switch when the Q value is lower than a specified value.

This goes no further than using the Q value for local monitoring and for protection switching of a given portion of an optical path. There seems to be no suggestion of monitoring the Q value at multiple locations along a path and comparing the results to locate a source of a degradation, to enable a more appropriate response.

Zhuo is cited as being relevant to claim 11, and shows a dynamic optical network carrying out end to end path protection, and shows a path testing stage which monitors Q value at all receivers along a path having a number of optical spans, for use by a line control system. If the path Q is above a test threshold which includes a margin, the test is considered successful. However, again there is no suggestion of monitoring the Q at different points within one optical span and comparing the values to locate a source of a degradation.

Neither of these two references shows monitoring the optical performance of same optical signal at two locations, and comparing the performances. There is no suggestion in either reference providing an incentive for a skilled person to do this. Accordingly this claim would not have been obvious.

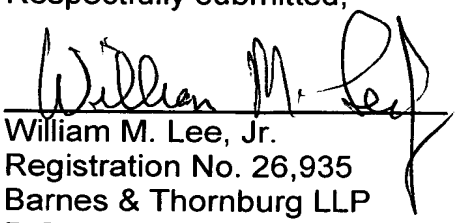
Independent claim 14 is a corresponding apparatus claim which now has similar distinctive features to claim 6. Independent claim 21 is a corresponding network claim which now has similar distinctive features to claim 6. Claim 24 has been deleted. Other claims are or have been made dependent on these claims and so similar comments apply.

All the remaining claims are allowed or are dependent on an allowable main claim and so are submitted to be allowable also for the same reasons.

All the points raised have been dealt with, all the claims are believed to be in condition for allowance, and reconsideration is requested.

December 7, 2005

Respectfully submitted,



William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 (fax)